IJDC / *Conference Paper*

Preserving Under Pressure: The 2016/2017 Data Rescue Movement and the Limits of Emergency Curation

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Abstract

This paper offers a retrospective analysis of the 2016/2017 Data Rescue movement, a grassroots initiative that mobilized librarians, technologists, and activists to preserve at-risk federal environmental data in response to the anticipated threats posed by the Trump administration. Drawing on 16 qualitative interviews conducted in early 2025, this paper examines how participants now reflect on their motivations, methods, and the movement's legacy. It explores the ethical and affective dimensions of emergency curation, the tensions between institutional and community-driven preservation, and the shifting trust in public data infrastructures. Participants expressed a strong sense of civic duty and emotional urgency, but also critical distance from the movement's limitations, particularly its overreliance on downloading as a preservation strategy. The findings underscore that trust in infrastructure is relational and partial, shaped by the political context and social practice. This paper argues that digital preservation in politically volatile times must be grounded in care, accountability, and long-term infrastructural thinking, rather than reactive interventions alone.

Submitted 6 January 2026 ~ *Accepted* 14 January 2026

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This paper was presented at the International Digital Curation Conference IDCC26, 16-18 February 2026

The *International Journal of Digital Curation* is an international journal committed to scholarly excellence and dedicated to the advancement of digital curation across a wide range of sectors. The IJDC is published by the University of Edinburgh on behalf of the Digital Curation Centre. ISSN: 1746-8256. URL: http://www.ijdc.net/

Introduction

In late 2016, a wave of political anxiety swept across scientific, archival, and civic tech communities. Fearing that the Trump administration would undermine environmental governance, activists launched data rescue events to safeguard vulnerable federal datasets. These events, held in libraries, universities, and civic spaces, were acts of digital preservation, protest, and infrastructural improvisation.

Drawing on 16 semi-structured interviews conducted between January and March 2025 with people involved in the 2016/2017 Data Rescue movement and the Environmental Data and Governance Initiative (EDGI), this paper examines how participants retrospectively interpret their motivations, strategies, and the movement's legacy, and what these accounts reveal about trust, distrust, and infrastructural fragility in contested political environments. It asks: How do participants in the Data Rescue movement reflect on their early contributions, and what do their accounts reveal about the entanglements of trust, activism, and infrastructural fragility in contested political environments?

A retrospective lens matters here because data rescue was never only about whether data disappeared. In addition, it was about what participants came to believe about the stability of public knowledge systems, and what care work became necessary once that stability felt uncertain. Interview-based reflections make it possible to examine how initial urgency was later reevaluated, what was learned, and where participants now locate the movement's limits and its achievements.

Throughout this paper, the term emergency curation is used to describe urgency-driven preservation work that aims to stabilize access by rapid duplication and ad hoc coordination. Emergency curation can be effective as a form of first response. In addition, participants' accounts show that it can produce a misleading sense of closure when duplication is treated as equivalent to long-term preservation, documentation, and stewardship.

Therefore, this paper's contribution is twofold. Empirically, it provides a qualitative retrospective of the first data rescue wave from the perspective of people who organized and carried out the work. Conceptually, it connects these reflections to questions of system trust and infrastructural fragility, foregrounding how affect and ethics shape what preservation looks like under conditions of political threat.

By examining these reflections, this paper contributes to archival studies, digital curation, and infrastructure research. It focuses on affective labour, ethical motivations, and systemic distrust, and critiques the limits of urgency-driven interventions, arguing for sustainable, politically attuned preservation strategies amid authoritarian threat.

Background

The Data Rescue movement emerged as a grassroots response to fears of data loss following the 2016 US presidential election. The first community-led event, then titled 'Guerrilla Archiving,' occurred in December 2016 at the University of Toronto, Canada, organized by a group that would form the EDGI (Walker et al., 2018). In parallel, the group Data Refuge formed at the University of Pennsylvania and held its first 'Data Rescue' event in January 2017 (Janz, 2019). Together, the EDGI and Data Refuge facilitated over 50 events with nearly 1,500 participants across North America, relying on workflows that involved nominating datasets to the End of Term (EoT) Archive and downloading at-risk environmental data (Dillon et al., 2017; Lamdan, 2017).

These events expanded beyond preservation to include storytelling, Wikipedia edit-a-thons, and citizen science, reflecting the movement's hybrid archival, educational, and activist functions (Allen et al., 2017a; Ray, 2018). The feared data purges did not actually happen; the movement highlighted the labour-intensive nature of digital curation and the limits of volunteer capacity. It also exposed systemic weaknesses in US federal data infrastructures and sparked ongoing

scholarly and activist initiatives, such as the EDGI (Allen et al., 2017b; Currie & Paris, 2018; Cortez, 2019; Currie et al., 2019).

Researchers have interpreted data rescue as a form of anticipatory data activism that sought to protect threatened knowledge and reconfigure control over information infrastructures (Dillon, 2017 et al.; Paris et al., 2017; Currie & Paris, 2018; Vera et al., 2018; Vera et al., 2019; Currie et al., 2018; Rothfritz, 2026). Grassroots responses, such as the Data Rescue movement, can be understood as infrastructural interventions. Their aim was to preserve data and protect the continuity of epistemic systems perceived to be under threat. These practices have been analysed within the literature on archival activism, which frames preservation as a political and ethical act (Caswell & Cifor, 2016; Vukliš & Gilliland, 2016; Cifor et al., 2018). Archival activism resists the assumption that archives are static repositories, highlighting their performative and future-oriented functions instead.

In digital curation, questions of preservation as an ethical and political practice also intersect with institutional efforts to formalize and demonstrate repository trustworthiness, most visibly through certification.

Certification provides an external stamp of approval that a repository has the policies, infrastructure, and practices required for long-term digital preservation (Bak, 2016). A successful audit is intended to signal that an independent assessment has determined that the repository can preserve and provide access to digital materials using methods that keep them authentic, reliable, accessible, and usable over time (Donaldson, 2017 et al.; Corrado, 2019). Repositories frequently present certification as a mark of distinction. A content analysis of repository websites found that approximately three-quarters of certified repositories explicitly mention their trustworthy digital repository status and display official seals (Donaldson, 2020). These seals, for example, the CoreTrustSeal logo, function as visible cues meant to boost stakeholder confidence. The underlying assumption is that when researchers, data depositors, funders, or members of the public encounter a certification seal, they will be more inclined to trust the repository with valuable data or to trust data obtained from it (Donaldson and Russel, 2023). Across standards, certification is framed as beneficial because it reassures funders that investments are safeguarded, persuades data producers that deposits will be cared for, and signals to end users that content is authoritative and will remain available.

However, alongside the growth of certification initiatives, there is sustained debate about the effectiveness and limits of certification as a proxy for trust. One central question is whether obtaining a seal correlates with better preservation outcomes or higher trust from users (Donaldson and Russell, 2023). Do certified repositories preserve digital information more reliably after certification than before, and are they demonstrably more trustworthy, either in practice or in perception, than repositories that are not certified? The standards presume so; however, empirical evidence remains uneven. Existing studies suggest that the impact of certification on stakeholder behaviour, for example, preferential depositing or citing, is not well understood and requires further research.

A related critique centres on the 'trusted by whom' question. Bak (2016) argued that the notion of trust embedded in trustworthy digital repository standards historically emphasized internal trustworthiness, for example, proving compliance to auditors and standards bodies, rather than cultivating trust as experienced by users. He noted a positive trend insofar as standards discourse increasingly references designated communities and user perceptions, shifting attention from trust demonstrated on paper to trust as encountered in practice. However, the concept of a designated community often remains underspecified, including questions of who is included and how community needs and perceptions are assessed (Frank & Rothfritz, 2022).

The dynamics of trust and distrust are central to understanding the motivations and outcomes of the Data Rescue movement. System trust, as distinct from interpersonal trust, refers to the confidence actors place in institutional procedures and public infrastructures (Luhmann, 1979; Sumpf, 2019). Participants in data rescue acted out of a breakdown in system trust, and particularly distrust in the Trump administration's intentions toward environmental data, informed in part by analogous actions under Canada's Harper government (Nost et al., 2021). Therefore, institutional assurances through which repositories seek to demonstrate trustworthiness, including certification audits and visible seals, can be understood as symbolic tokens that translate complex preservation commitments into legible cues for outsiders. These

symbols can offer a form of structural reassurance and, importantly, a stabilizing narrative that helps people act under uncertainty, even when they cannot directly verify the system's reliability in practice.

However, data rescue also suggests the limits of this symbolic economy: a seal can attest to repository practices, but it cannot by itself secure the political and organizational conditions that make those practices durable, such as mandates, budgets, and credible long-term stewardship commitments. This tension, between demonstrable trustworthiness and precarious system trust, is echoed in cross-sector guidance that emerged alongside data rescue, which stresses that preservation depends on copying data and coordinating with established data centres and keeping metadata and documentation attached to the data over time (Mayernik et al., 2017).

Conceptual Framing

The term emergency curation is meant to capture a specific mode of preservation work that is shaped by perceived imminence and uncertainty. It combines elements of crisis response, volunteer coordination, and improvised technical practice. In this mode, speed becomes a value, and success is often measured through visible outputs, such as the number of datasets mirrored or pages archived.

Emergency curation is a technical response. In addition, it is a moral and affective one. Participants describe data rescue as a way to act, to regain agency, and to express solidarity at a moment when public institutions felt politically unstable. This helps explain why downloading could feel like preservation, even when interviewees later judged the results to be incomplete or difficult to use.

A central analytic distinction in this paper is between availability and meaningful accessibility. Availability refers to whether a copy exists and can be retrieved. Meaningful accessibility depends on interpretability over time, including documentation, provenance, and metadata that allow data to be understood in context. This distinction provides a lens for assessing why many interviewees later described the movement's emphasis on downloading as empowering and short-sighted.

Finally, trust in public data infrastructures is approached as relational and partial. Rather than treating trust as a stable attitude toward an institution, it is treated as an outcome of situated encounters with people, procedures, and material systems. Certification can make stewardship auditable, but as the data rescue case will show, auditability does not by itself stabilize the political and organizational conditions that allow stewardship commitments to hold over time. In the data rescue accounts, distrust in political leadership coexisted with respect for maintenance work carried out by civil servants, and with critical scepticism toward what federal data does and does not make visible, especially in relation to environmental justice.

Methodology

This qualitative case study (Merriam, 1988; Stake, 2010) draws on 16 semi-structured interviews conducted between January and March 2025. Participants were purposefully sampled from across the EDGI and the broader data rescue network, including librarians, scientists, technologists, and activists. Where appropriate, recruitment was supplemented by referrals from interviewees to other potential participants. This allowed this paper to trace shared patterns of meaning across diverse forms of involvement, without assuming a uniform experience across the movement.

To strengthen analytic transparency, analytic memos were maintained throughout transcription and analysis, documenting emerging interpretations, tensions, and questions. Themes were iteratively refined by returning to the full interview corpus, checking for disconfirming cases, and comparing how similar concerns (e.g., urgency, trust, or infrastructural fragility) were articulated across different roles. This supports an interpretive reading of data rescue as a technical and social practice, which remains attentive to the limits of retrospective sense-making.

The interviews were anonymized, transcribed, and analysed with MAXQDA using thematic analysis (Braun & Clarke, 2006). The researcher's positionality as an information scientist with a

background in digital curation, along with the timing of the interviews, which were conducted during the early weeks of the second Trump administration, were reflexively considered throughout the research process, with particular attention to the retrospective and contingent nature of memory in times of recurring crisis (Berger, 2015; Gilliland & Caswell, 2016).

Interviews lasted between 35 and 60 min and were conducted via a secure video conferencing platform. All interviews were recorded, transcribed, and anonymized. Informed consent was obtained from all participants. Quotations are attributed using anonymized and randomly assigned interview IDs (e.g., I_45). The numeric component is a pseudonymous identifier and is non-consecutive by design. The interview sample is composed of 16 participants (N = 16). Due to its sensitive nature the data was not published or shared with anyone. Table 1 in the appendix shows a high-level overview of the interview participants.

Interviewees were asked to reflect on their involvement with the EDGI, data rescue movement, or both, their motivations for participation, and their views on the outcomes and legacy of these efforts. Questions also explored broader themes, such as perceptions of public data infrastructures, risk assessment, and trust and distrust in government data stewardship and federal data infrastructures.

The analysis followed reflexive thematic analysis (Braun & Clarke, 2006). Initial coding was largely inductive and remained close to the participants' language. Then, codes were iteratively reviewed and clustered into candidate themes, which were refined through repeated comparison across the interview corpus and by analytic memoing. Throughout, themes were treated as shared patterns of meaning that illustrate how participants evaluated data rescue's tactics and its infrastructural implications over time.

This paper draws on feminist epistemologies and Science and Technology Studies (STS)-informed approaches to infrastructure studies (Star & Ruhleder, 1996; Bowker et al., 2010), allowing for an interpretive understanding of infrastructure as both material and social. The inclusion of affective and ethical dimensions, such as fear, care, solidarity, and burnout, was informed by archival theory and literature on activist scholarship (Caswell, 2014; Gilliland & Caswell, 2016; Murphy, 2015), which emphasizes the politics and relational labour embedded in archival work.

Findings

Epistemic Rupture and Anticipatory Threat

This first theme captures how participants narrate the post-election moment as a break in assumptions about continuity. Rather than describing a confirmed loss event, interviewees describe a shift in perceived plausibility: it became thinkable that federal environmental data could be suppressed, altered, or rendered inaccessible. This sense of plausibility provided an affective and epistemic basis for urgent action.

The 2016 election was widely interpreted by participants as a moment of epistemic rupture. Interviewees recalled the immediate post-election period as filled with uncertainty, fear, and urgency. Several interviewees (I_79, I_56, I_13, I_08, I_43, and I_63) explicitly drew comparisons with Canada's conservative Harper administration, which had systematically suppressed environmental data and shut down public scientific research. This provided a historical reference point for anticipating data suppression or manipulation. This anticipation did not require proof; it was rather experienced as plausible and imminent.

Civic Duty, Learning, and Affective Urgency

Across accounts, participation is described as an ethical response and a way of becoming active under conditions of political disorientation. Motivations are not framed as purely professional, nor purely activist. They combine civic duty, a desire to be useful, opportunities for learning, and a search for collective forms of agency.

Participants across roles and disciplines described their entry into the movement as driven by a moral, or professional obligation, or both, to act and a way to become active. Motivations varied: some interviewees were librarians (I_80, I_63, I_75, and I_33) and driven by professional commitments to transparency and science communication; others by activist backgrounds and a desire to 'be useful' (I_45 and I_80). Many also emphasized learning as an outcome. Of note, I_70, I_72, I_13, I_01, and I_75 were all early in their careers and became involved with the EDGI because their supervisors or mentors were also involved.

Across interviewees, affective responses to the political climate were strong motivators. Many described the 2016 election as a shock that triggered moral urgency and a desire for agency. Therefore, the events functioned as spaces of 'collective therapy' (I_79) or 'psychological hygiene' (I_56), offering structure in a time of political disorientation. Many interviewees described the events as improvisational and chaotic, driven by frenzy and urgency, and as deeply affective, characterized by a mix of solidarity, activism, mutual aid, and building toward a shared goal (I_77, I_49, I_08, I_80, I_13, I_43, I_33, I_63, and I_56).

Epistemic Dissonance and the Politics of Defending What You Critique

Participants' retrospective accounts repeatedly return to a tension between critique and defence. Many interviewees value federal environmental data as a public good tied to democratic accountability, while simultaneously holding longstanding critiques of what these datasets omit or render invisible. The phrase epistemic dissonance is used to describe this patterned tension in meaning-making, not as an individual psychological state but as a social and political dilemma that becomes visible in moments of crisis.

Interviewees held complex views on the value and limits of government data. Because the Data Rescue movement in 2016/2017 focused on federal environmental data, the focus was on data that would be useful for research around environmental studies, especially in environmental justice and climate change. Participants expressed a deep belief that federal data is a public good and important to civic life. This value was often framed as civic entitlement and democratic accountability (I_72, I_63, and I_49). However, many expressed longstanding scepticism toward the political neutrality and epistemic completeness of these datasets (I_43, I_70, I_08, I_79, I_01, and I_45). Some interviewees experienced tension between their academic training and their new activist identities. One interviewee reflected on the irony of STS scholars, often critical of government and state knowledge, now mobilizing to save government data. 'We're wrecking our brains, because we're doing all this work, that's critiquing the government and critiquing policy. And here I am, an anarchist, trying to save government data?!' (I_45). These moments of epistemic dissonance were common, especially among critical researchers, who on the one hand critically reflected the 'performative' (I_70 and I_08) and often fatally de-contextualized (I_01, and I_77) nature of public data to construct a 'facade of objectivity' (I_45), and on the other hand got very involved in saving or 'defending' (I_43 and I_79) the data they criticized.

Trust as Relational and Partial

The notion of trust in federal data infrastructures was rarely absolute and was often difficult for interviewees to articulate in the abstract. Of note, when asked about trust or distrust in data infrastructures, all interviewees did not spontaneously talk about infrastructures, but rather about the data itself or the people managing and maintaining the infrastructures. In addition, trust in people was actually strengthened in some cases through their work with the EDGI and Data Rescue. One interviewee stated:

> 'One other thing it does is that I actually do trust, let's say, the civil servants, that maintain a lot of the public government information, because I've gotten a close look at the work that they do through EDGI.' (I_75).

Interviewees often framed trust as conditional or partial. For example, I_08, I_13, I_72, I_45, and I_79 noted that federal data and statistics could be seen as reliable but not as measuring the

'right things' for environmental justice. Therefore, I_79 concluded that the data should be trusted and distrusted. Interviewees also described a sense of epistemic and infrastructural fragility, especially in public sector data infrastructures. They noted technical decay, underfunding, missing metadata, and loss of digital tools, exacerbated by political volatility.

> 'Historically, the federal government has been one of largest reach places to store long term datasets. And for a long time it felt like the most trustworthy place. So it wasn't going to go anywhere. (laughs) Now, obviously not so much.' (I_70)

Trustworthiness of data infrastructures was associated with transparency in origin and function, stability over time, and accountability to public values. Participants also expressed more trust in collective, federated, or care-based models of infrastructure governance than in top-down or private-sector models.

Grassroots and Institutional Preservation Practices as a Clash of Values

Participants' evaluations of the movement's legacy were shaped by how they experienced coordination and accountability. Retrospective accounts juxtapose the EDGI's decentralized, community-driven orientation with more formalized efforts associated with established institutions. These accounts are less about identifying a single correct approach and more about describing where values, practices, and expectations of stewardship aligned or conflicted.

A central tension emerging in participants' reflections was the friction between grassroots and institutional approaches to data preservation, particularly between the EDGI's decentralized, community- and activist-driven approach and more formalized and institutionalized efforts, such as Data Refuge and the EoT archive. Some interviewees noted that Data Refuge had more visibility and resources but was seen by some as institutionally aligned and less participatory in governance. In contrast, community-based archiving was, in hindsight, described by others as more inclusive but also as unorganized, panic-driven, and generally idealistic, taking on 'herculean, poorly framed tasks' (I_13) in a 'sort of undifferentiated panic ... where it was very difficult to distinguish immediate, true, but genuine urgency from, you know, paranoia.' (I_79). I_56 described these tensions as a 'clash of values' and the distinction extended to epistemological values. Some interviewees favoured community accountability and distributed data collections, and other participants, often with a background in library or information sciences, criticized overly technocratic approaches without taking into account archival practices, such as authenticity, integrity, and adequate metadata creation for the downloaded data. One interviewee reflected that the solution to download as much data as possible, in retrospect, felt short-sighted.

> 'On the side of the events themselves, I think there was sometimes the feeling of like, okay, if you catalogue all the sites of the EPA that you can easily get to now ... You're done now. The EPA is protected now. We have all of the data and we're going to share. ... I think that can feel good in the moment. But sometimes, I worried that that made it feel like that was enough or that was sufficient. ... I think it started slightly as this, like, "We can code our way out of this societal problem." And I think that's just never true. And I wish we had addressed that earlier, honestly.' (I_49)

Availability Versus Accessibility

Several interviewees evaluate data rescue through the gap between making data available and making it usable. Their reflections foreground the importance of documentation, context, and ongoing update cycles. This is a technical critique and a critique of what becomes countable as success during emergency curation, and what remains invisible when preservation is equated with downloading.

Another key point of friction lay in the difference between the availability and accessibility of data. Many datasets were successfully mirrored and technically available; most of the interviewees

questioned whether the resulting data collections were meaningful, not just because, during the first Trump administration, no data actually vanished. Interviewees recalled a sense of disillusionment with the movement quite early on and while it was still going on (I_79, I_13, I_08, I_80, and I_77). One interviewee used the wording of 'essentially taking the family values and putting them into jars and burying them in the backyard' (I_79) when critically reflecting on the data rescue activities. This metaphoric description points to the general challenge of how impactful downloading static snapshots of datasets is, as a lot of data was actually not static but regularly updated, which constituted part of their informational value.

The question remained if and what kind of infrastructural support for the safekeeping of federal data was feasible. This discussion also took place in the Data Rescue movement, from the point of view of community-driven activities and more infrastructure-adjacent actors. Interviewees critically looked back at ideas revolving around tools, distributed web solutions, and blockchain, which in 2016–2017 were seen as technology-centred umbrella solutions for various problems.

These discussions can be illustrated by two examples. One interviewee (I_70) vividly remembered an episode where several EDGI members met up in person for a workshop to discuss what a more accountable version of public data and public data infrastructures might look like. The interviewee described this experience as 'striking' because it revealed a shared struggle to articulate a positive, forward-looking vision for public data infrastructure. It was easy for the group to critique existing systems and name what they opposed; they found it deeply challenging to imagine concrete alternatives. The moment stood out because it highlighted how difficult it was to move from critique to construction. Another interviewee (I_80) recalled a meeting with representatives from large institutions to form a plan in which these would coordinate to preserve copies of federal information. This initiative similarly failed, leaving the interviewee utterly frustrated with the unwillingness or inability of established infrastructures to take responsibility.

Discussion

Emergency Curation as a Boundary Practice Between Activism and Curation

The retrospective accounts of data rescue participants reflect urgency, emotion, and critique. In the immediate aftermath of the 2016 US presidential election, the movement was experienced as a morally necessary intervention to counteract potential data loss under an administration perceived as hostile to science and transparency. Participants described strong affective commitment and a shared sense of professional and civic duty. However, nearly a decade later, many expressed ambivalence toward their early efforts, viewing the movement's tactical focus on data downloading as symbolically powerful but practically limited.

This ambivalence is not well captured by a binary of success or failure. Instead, it reflects a shift in evaluative criteria over time. In the moment of perceived threat, success was often experienced as the capacity to act quickly and visibly, to create redundancy, and to restore a sense of agency. With temporal distance, success is more frequently assessed in curatorial terms: whether preserved materials remain interpretable, whether responsibilities for stewardship were established, and whether actions taken under urgency translated into durable infrastructures of care. Understood this way, data rescue can be read as a boundary practice that moved between activist urgency and curatorial expectations, producing mixed outcomes depending on what counted as preservation at different points in time.

These tensions align with broader patterns of reflexive activism, where participants navigated the desire to intervene quickly alongside strategic uncertainty about what would meaningfully address the underlying problem (Cifor et al., 2018). They also resonate with crisis informatics research, which suggests that moments of rupture generate ad hoc innovation and new social alignments, but tend to struggle with sustainability once urgency fades (Starbird & Palen, 2011). In the participants' accounts, the central question shifted from what could be saved in the short term to how preservation should be imagined, whether as an emergency response or as part of a long-term infrastructural vision. This shift matters for digital curation because it foregrounds a

recurring dilemma: crisis flattens complex curatorial sequences into a small set of actionable tasks; however, it does not automatically generate the organizational forms, mandates, and resources that enable stewardship as a routine practice. This is also the point at which questions of trust become unavoidable. Emergency curation is motivated by distrust and vulnerability, but it immediately raises the question of which infrastructures, actors, and arrangements can be trusted to hold responsibility once urgency fades.

Trust, Distrust, and the Question of Trustworthiness in Public Data Infrastructures

Participants did not view trust in federal data infrastructures as absolute, but instead framed it as relational, partial, and often directed toward the individuals maintaining the systems rather than the infrastructures. Their involvement with the EDGI sometimes strengthened trust in civil servants, even as many noted that federal data, while technically reliable, often failed to capture the dimensions required for environmental justice. Trust and distrust were seen as coexisting responses to perceived infrastructural fragility, marked by underfunding, tool decay, and political instability. Participants associated trustworthy infrastructures with transparency, longevity, and accountability, and often preferred collective or care-based governance models over centralized or privatized approaches. Similarly, Yakel et al. (2013) have shown that members of a repository user community often associate trust with transparency, and that perceptions of sustainability and preservation guarantees shape how repositories are evaluated in practice.

This relational framing of trust can be sharpened by distinguishing between trusting people and judging infrastructures as trustworthy. In digital curation, trustworthiness is often connected to demonstrability. It is a matter of competence or good intentions and the capacity to make stewardship legible over time through governance, documentation, and auditable practices. These practices can be formalized and publicly communicated through certification processes, for example, the CoreTrustSeal. However, data rescue suggests that the relationship between verification and trust can be disrupted by political contingency. Even if repositories can demonstrate compliance, participants' accounts show that distrust can be directed at the broader system in which repositories are embedded, including the stability of public institutions, the durability of mandates, and the credibility of long-term commitments. In this sense, data rescue shows a limit of certification as a proxy for trust. Trustworthiness can be demonstrated, but trust is still negotiated in relation to perceived vulnerability, political embeddedness, and the availability of accountable stewardship arrangements. Participants did not use certification language; their accounts repeatedly returned to related concerns: who is accountable for continuity, how integrity is ensured, how decisions are made, and whether infrastructures have the stability required to support long-term commitments.

This helps explain why distrust did not map neatly onto institutions as such. Distrust was frequently oriented toward political volatility and the fragility of the organizational conditions required for long-term stewardship. In addition, trust could be attached to maintenance work and to the ethics and expertise of civil servants. Therefore, participants' reflections point to a form of infrastructural realism. Continuity is not guaranteed by the existence of data systems; however, it is achieved through ongoing maintenance, resourcing, and governance. The Data Rescue movement made these dependencies visible by forcing participants to confront how quickly assumptions about stability can erode under political threat.

From Technical Duplication to Meaningful Accessibility and Sustained Usability

The data rescue experience led participants to reevaluate the adequacy of emergency preservation. Technical duplication addressed immediate risks; it did not resolve the deeper issues of interpretability, sustained usability, or responsibility for ongoing maintenance (Moore, 2008; Borgman, 2015). Retrospective accounts suggest that the early emphasis on downloading produced a form of curatorial closure. It made the threat feel actionable and created visible outputs; however, it also encouraged an implicit equivalence between redundancy and

preservation. With temporal distance, this equivalence became difficult to sustain, particularly for dynamic datasets, whose value depends on update cycles, documentation practices, and stable access points.

This is where the distinction between availability and meaningful accessibility becomes analytically important. Participants repeatedly framed the problem as whether data could be copied and whether copied materials could remain intelligible and usable beyond the moment of crisis. Emergency downloads could preserve traces, but not necessarily the context required to interpret them responsibly. Therefore, the critique is not merely that the metadata was incomplete. It is that emergency curation did not consistently produce the connective tissue that enables long-term use: stable points of reference, clear provenance, and a credible account of what a dataset is, how it changes, and how it should be read.

Despite the movement's visibility, participants criticized the absence of systemic institutional support. The lack of coordination with established infrastructures highlighted a broader challenge: how to build resilient public knowledge systems in contexts where state commitment is unreliable. As Star (1999) suggests, infrastructure becomes most visible in moments of breakdown, a reality that data rescue participants came to understand technically and politically. The retrospective accounts suggest that emergency curation can raise vulnerabilities and catalyse action; however, it cannot easily be a substitute for institutional mandates, budgets, and long-term service models. This does not imply that grassroots efforts are misplaced. It implies that resilience requires pathways from event-based intervention to sustained stewardship, including mechanisms for handoff, interoperability, and shared accountability.

Implications for Practice and Policy

Design for meaningful accessibility, not only for redundancy. Where data rescue produced static copies, participants later questioned whether these copies remained interpretable over time. Activist preservation efforts can anticipate this by treating documentation, provenance notes, and minimal metadata as first-order work, not as optional follow-up.

Treat 'we can code our way out' as an anti-pattern. Participants' reflections suggest that infrastructure under political threat cannot be secured using tooling alone. Therefore, preservation strategies should include governance questions from the outset, including decision rights, accountability, and responsibilities for ongoing maintenance and updates. In addition, this is where repository trustworthiness becomes relevant as an orientation, even when formal certification is not pursued.

Build hybrid models that combine community legitimacy with institutional capacity. Retrospective accounts point to friction between community-driven and institutional approaches, but they also suggest that neither is sufficient on its own. Where partnerships are pursued, they need explicit transparency about what is archived, how integrity and authenticity are handled, and who is responsible for long-term access interfaces and preservation actions. Trustworthiness, in this sense, is produced through demonstrable commitments rather than assumed stability.

Plan the transition from a one-off intervention to sustained stewardship. Emergency curation can generate visibility, solidarity, and momentum. To avoid symbolic closure, it should be paired with pathways for ongoing work, such as distributed stewardship networks, legal protections for public records, and support structures that reduce burnout and make maintenance routine.

Treat certification as one element of trustworthiness, not as its endpoint. Certification can support transparency and accountability by making stewardship practices auditable and comparable. However, the data rescue accounts suggest that trust also depends on political credibility and on the perceived durability of mandates and resourcing. Where certification is pursued, it should be paired with forms of public-facing transparency and community engagement that address the 'trusted by whom' question, and with governance arrangements that remain robust under institutional volatility.

Limitations

This paper has several limitations. First, it draws on retrospective interviews conducted between January and March 2025, meaning that participants' accounts reflect sense-making shaped by temporal distance, selective recall, and renewed political volatility. These conditions are analytically meaningful for understanding how the movement is evaluated 'after the fact,' but they also mean that this paper does not attempt to reconstruct a comprehensive event history or to verify specific technical outcomes of data rescue workflows. Second, the sample is purposefully selected and situated within data rescue and EDGI-related networks; therefore, it is not statistically representative of all event participants, organizers, or institutional stakeholders. The findings should be read as transferable in a qualitative sense, offering patterns of meaning that may illuminate similar contexts, rather than as generalizable claims about all forms of activist preservation. Finally, the analysis focuses on participants' interpretations of trust, distrust, and infrastructural fragility, and does not independently assess the trustworthiness of particular repositories or the effectiveness of certification schemes. Instead, certification is used as an interpretive lens to reflect on how institutional assurances are understood and where they may fall short under conditions of political contingency.

Conclusion

The Data Rescue movement was a convergence of activism, care, and infrastructural improvisation. By foregrounding participants' retrospective reflections, this paper shows how emergency curation can generate agency and visibility under political threat while also revealing the limits of urgency-driven duplication as a preservation strategy.

The lessons drawn from this movement underscore that preservation without sustained usability is inadequate. Long-term access depends on documentation, provenance, and metadata practices that mean that data is interpretable beyond the moment of crisis. Participants' accounts also suggest that trust in infrastructures is relational and contingent: it is shaped by transparency, participation, and perceived institutional durability, rather than by institutional design alone. Certification can make stewardship auditable and legible; however, it cannot secure the political and organizational conditions that allow stewardship commitments to hold over time.

Therefore, emergency responses should be catalysts for sustained stewardship, not as one-off interventions. Anticipating infrastructural fragility requires redundancy and governance arrangements and legal protections that distribute responsibility and make accountability durable. Digital curation is a political practice: decisions about what and how to preserve are value-laden, and they demand care, reflexivity, and demonstrable commitments.

Data Availability

The data underlying this study are not available to protect the privacy and confidentiality of the participants interviewed.

Acknowledgments

I would like to thank all interview participants for sharing their time, experiences, and reflections for this study. I am grateful for their openness and generosity, and for the careful way they discussed the opportunities and the limits of data rescue work. Their contributions were essential to this research.

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Appendix

Table 1. Participant overview (N=16). Disciplinary areas and involvement types are deliberately generalized to reduce identifiability. Career stage refers to participants' position during the 2016-2017 Data Rescue movement. It reflects three broad categories: doctoral researcher, early career (postdoctoral researcher or newly appointed faculty or equivalent), and mid-career professional (established faculty, senior librarian, or professional practitioner). Role descriptions draw on participants' self-reported involvement.

ID	Disciplinary background	Role / involvement	Career stage (2016/17)
I_01	Social sciences	Research and analysis	Early career (postdoc / assistant professor)
I_08	Information and library science	Data Rescue events; environmental data justice	Doctoral researcher
I_13	Information and library science	Archiving working group	Doctoral researcher
I_33	Information and library science	Website monitoring; Data Rescue events	Mid-career professional
I_43	Civic technology and organizing	Data Rescue event organization	Mid-career professional
I_45	Social sciences	Coordinating committee; environmental data justice	Doctoral researcher
I_49	Environmental and natural sciences	Archiving; website monitoring	Doctoral researcher
I_56	Science and technology studies	Steering committee; governance	Early career (postdoc / assistant professor)

I_59	Environmental and natural sciences	Steering committee; website monitoring	Early career (postdoc / assistant professor)
I_63	Law and information policy	Data Rescue event organization	Mid-career professional
I_70	Social sciences	Capacity and governance working group	Doctoral researcher
I_72	Environmental and natural sciences	Website monitoring working group	Early career (postdoc / assistant professor)
I_75	Information and library science	Website monitoring working group	Mid-career professional
I_77	Social sciences	Data Rescue event; EDGI research	Early career (postdoc / assistant professor)
I_79	Civic technology and organizing	Data Rescue core coordination	Mid-career professional
I_80	Information and library science	Data Rescue / DataRefuge founding coordination	Mid-career professional